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An efficient BIST method for distributed small buffers

Jienn-Wh. Huang, D.C. Wu, S.C. Lee, K.J.

Dept. of Comput. Sci. & Inf. Eng., Nat. Chung-Cheng Univ., Chiayi, Taiwan

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Abstract

In this work, we propose a new built-in self-testing (BIST) method that is able to concurrently test a set of spatially distributed embedded-memory modules with different sizes. Using the concept of redundant read-write operations, we develop a new march method, called RSMarch, to efficiently test each memory module. The new method has the advantages of low hardware overhead, short test time, and high-fault coverage. The total test time is dominated by large-size modules. To further reduce the test time, we also propose a split-mode test method to virtually partition each large memory array into smaller modules, which can be tested simultaneously.

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Author Keywords

Not Available

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[Abstract](#) | [Full Text: PDE \(1308KB\)](#)

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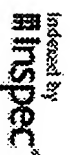
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L4 L2 and "point-to-point"

0 L4

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L3 L2 and "point-to-point"

7 L3

L2 ((storage or disk or disc) near5 controller) same virtual\$7 same redundant

138 L2

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L1 ((storage or disk or disc) near5 controller) same virtual\$7 same redundant

7 L1

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